CLAIMS

1. A method for estimating a value of a diffusion tensor, said method comprising:

    obtaining, from a plurality of test subjects, DT-MRI data from which an initial estimate of the tensor can be derived;

    determining a first value indicative of intra-subject variations in said data;

    determining a second value indicative of inter-subject variation in said data; and

    at least in part on the basis of said first and second values, determining a subject-specific additive offset for adjusting said DT-MRI data.

2. The method of claim 1, further comprising generating adjusted data by adjusting said DT-MRI data by said offset.

3. The method of claim 2, further comprising generating a bowtie plot from said adjusted data.

4. The method of claim 1, further comprising selecting said DT-MRI data to represent an initial estimate of said diffusion tensor value.

5. The method of claim 1, further comprising selecting said DT-MRI data to represent echo data from which an initial estimate of the diffusion tensor can be derived.

6. The method of claim 1, wherein determining a first value comprises determining an average intra-subject variance.

7. The method of claim 1, wherein determining a second value comprises determining an inter-subject variance.

8. A computer-readable medium having encoded thereon software for estimating a value of a diffusion tensor, said software comprising instructions for:

    obtaining, from a plurality of test subjects, DT-MRI data from which an initial estimate of the tensor can be derived;

determining a first value indicative of intra-subject variations in said data;

determining a second value indicative of inter-subject variation in said data; and

at least in part on the basis of said first and second values, determining a subject-specific additive offset for adjusting said DT-MRI data.

9.   The computer-readable medium of claim **8**, wherein the software further comprises instructions for generating adjusted data by adjusting said DT-MRI data by said offset.

10.   The computer-readable medium of claim **9**, wherein the software further comprises instructions for generating a bowtie plot from said adjusted data.

11.   The computer-readable medium of claim **8**, wherein the software further comprises instructions for selecting said DT-MRI data to represent an initial estimate of said diffusion tensor value.

12.   The computer-readable medium of claim **8**, wherein the software further comprises instructions for selecting said DT-MRI data to represent echo data from which an initial estimate of the diffusion tensor can be derived.

13.   The computer-readable medium of claim **8**, wherein the instructions for determining a first value comprise instructions for determining an average intra-subject variance.

14.   The computer-readable medium of claim **8**, wherein the instructions for determining a second value comprise instructions for determining an inter-subject variance.

15.   A system for estimating a value of a diffusion tensor, said system comprising:

an MRI machine;

a processor in data communication with the MRI machine;

a computer-readable medium in data communication with the processor, the
computer-readable medium having encoded thereon software as recited in
claim **9**.